Abstract

The present invention reduces complexity of computation as about 40% comparing to the conventional depth first tree search method. A method for searching an algebraic codebook in algebraic code excited linear prediction (ACELP) vocoding using a depth first tree method, includes the steps of: a) searching branches of predetermined levels to predict a branch in which optimum pulse is located; b) choosing a predetermined number of branches according to the search result of the step a) and removing residual branches; and c) searching the chosen branches and choosing optimum algebraic code.